

ENERGY STAR for Set-top Boxes  
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282	Draft 3 Manufacturers	N/A	2/11/2008	Table of Contents	Update the page numbers as they are not correct.	Completed	We will make the necessary corrections in the Final Draft.
283	Draft 3 Manufacturers	276	2/11/2008	High Definition Allowance	In EPA's response to Draft 2 comments, it was made clear that the allowance for High Definition only applies to STBs that have a HD output and not to STBs that can decode HD but only output SD. Please update the definition of High Definition Resolution to indicate "Video output with resolutions greater than 480i/p.	Completed	The definition has been updated in the Final Draft specification.
284	Draft 3 Manufacturers	290-291	2/11/2008	Terminology	The term "Gateway" should be clarified or changed. Some systems that provide service to hundreds of customers also use the term "gateway" (e.g., DIRECTV MFH3™: <a href="http://www.directv.com/images/assets/mdu/DIRECTV_MFH3.pdf">http://www.directv.com/images/assets/mdu/DIRECTV_MFH3.pdf</a> ). The DirecTV MFH3 system consists of a gateway (or head end) that contains many tuners and distributes the signals via IP multicast over Local Area Network technologies such as Ethernet, MOCA, or something else. The application is for Apartment buildings or Multi Dwelling Units (MDUs). It should be made clear that "gateway" in the context of these requirements is not referring to these commercial gateways, which are either part of the service provider's infrastructure (similar to DSLAMs) or are owned by a MDU Dealer.	Completed	The term "multi-room" has replaced "gateway" in the Final Draft specification to avoid confusion. The specification is not intended to cover commercial gateways and this has been clarified in the definition.
285	Draft 3 Manufacturers	396-374	2/11/2008	Multi-Rooms	Gateways, such as used in DIRECTV MFH3™, DSLAMs, and other infrastructure should be explicitly excluded in this section. See comment on lines 290-291 above.	Completed	See response in row 284.
286	Draft 3 Manufacturers	401-407	2/11/2008	Base Functional Allowance	We would like some clarification. According to the definitions in "B) Base Functional Allowance," STBs that include satellite tuners in a DIRECTV MFH3™ system (see comment on lines 290-291 above) would be considered satellite boxes. Even though they principally receive their video signal over an IP network, STBs that include HDDs also include tuners in case the customer someday moves to a house and wants to keep their stored content. In cases where there is no satellite tuner, the STBs would be considered IP STBs. Is this the proper interpretation?	Completed	Yes, this is the proper interpretation if the box does not have a satellite tuner but uses IP to gain access to content being streamed from the MFH3 system on the roof.

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287	Draft 3 Manufacturers	N/A	2/11/2008	Table 1	In our Draft 2 comments, we asked what type of video was being processed by the STB when determining the base allowance and were told to check the details in Appendix C of the Tiax report. We did that. The Tiax report only says to display "live video." This is not a complete answer. Power draw will vary depending on standard definition versus high definition, sports (high motion) versus talk show (low motion), and MPEG-2 versus MPEG-4. Would it be possible to specify a reference stream to use for testing as is done for DVD players?	Completed	Please refer to the amended CSA test procedure and requirements for testing over various broadcast types.
288	Draft 3 Manufacturers	N/A	2/11/2008	Table 2	In EPA's response to Draft 2 comments, it was stated that both standalone and gateway network allowances are included in Draft 3 (see the EPA document STB_Spec_Comments_Matrix_1-14-07.pdf, page 3, line 410 Home Network Interface, Response column). However, we cannot find the standalone allowance given in Draft 3. Please add an allowance for devices that support a home network interface (MoCA, Ethernet, etc.) but are not considered "gateways". The suggested Tier 1 allowance is 15 kWh/year.	Completed	The Final Draft specification includes an Additional Functionality Allowance for "Home Network Interface."
289	Draft 3 Manufacturers	N/A	2/11/2008	Table 2	The definition for Out-Of-Band tuners is given in the Additional Functionalities section (Item P, line 278). This definition seems to imply that DOCSIS could be considered an "other similar type of technology." However, no allowance for an Out-Of-Band tuner is given in Table 2. Please add a corresponding Out-Of-Band tuner allowance to Table 2 that will also cover DOCSIS.	Completed	The DOCSIS definition has been moved out of the Additional Functionalities section of the Final Draft. An allowance for DOCSIS has been added.
290	Draft 3 Manufacturers	N/A	2/11/2008	DOCSIS Modem	As was stated in the 05-FEB-2008 call, manufacturers who are building a retail class cable STB are required to put in both legacy OOB (SCTE 55) and DOCSIS interfaces. At the time of manufacture, it is unknown on which cable service provider the box will eventually be used. An allowance needs to be given for out-of-band communication. It is agreed that the modes of out-of band communication will be mutually exclusive; only one mode will be used at a time.	Completed	A DOCSIS allowance has been added to the Final Draft specification.

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291	Draft 3 Manufacturers	481	2/11/2008	EPSs	<p>Why can't a STB that meets ENERGY STAR requirements but its external power supply does not still be an ENERGY STAR box? Shouldn't the requirement be that the total package of STB and EPS meet the allowance? Otherwise, STBs with an EPS are disadvantage over an STB with an integrated power supply. A box with an inefficient internal supply but very low STB power draw will pass, but the same combination with an external supply will fail.</p> <p>After today's call (05-FEB-2008) and the discussion on internal versus external power supplies, power supply designers were consulted. They commented that external supplies typically have to be more concerned about efficiency and heat dissipation because of their smaller totally enclosed design. It is not easy to dissipate heat from an external supply and meet UL surface temperature requirements. So to repeat from above, the total power draw of the EPS and STB package should be required to meet the allowance and place no additional burdens on an EPS for active load efficiency. Otherwise STBs with internal and external supplies are being held to different standards. It would be agreeable to specify that</p>	Completed	EPA is committed to advancing power supply efficiency in all products. EPA continues to see the benefit of encouraging the use of energy-efficient EPSs and sees inclusion of EPS requirements in end-use products as a means of raising the efficiency while also lowering the cost of efficient EPSs. The Final Draft specification will not require that refurbished or reconfigured, and likely deployed, boxes with an EPS use one that can meet ENERGY STAR because of the potential negative environmental impact of such a requirement, but this requirement will be retained for newly-manufactured boxes.
292	Draft 3 Manufacturers	497-515	2/11/2008	Multi-Rooms	It should be made clear that these requirements do not apply to Gateways used for distributing signals to multiple dwellings such as the DIRECTV MFH3™ system (see comment on lines 290-291 above). Obviously, a gateway used for service distribution, that has at least 32 tuners and supports hundreds of STBs will not be meeting these requirements.	Completed	Agreed. See response to similar comments above.
293	Draft 3 Manufacturers	N/A	2/11/2008	DOCSIS Modem	With the migration to set-top models that utilize DOCSIS as an out-of-band communication technology, we recommend an additional allowance be added for DOCSIS. We would request a value be allotted for DOCSIS in the 3 to 4 Watt range (~ 26-35kWh).	Completed	A DOCSIS allowance has been added to the Final Draft specification.

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294	Draft 3 Manufacturers	N/A	2/11/2008	Home Networking Technology	Regarding home networking technology, we believe that an additional allowance needs to be added for both a DVR set-top box AND for a non-DVR set-top. Regardless of whether the technology is MoCA, 802.11x, or another yet-to-be-defined technology, both set-tops on the end of a point-to-point connection in the home require this technology to share video content. We recommend a 4 Watt (~35kWh) adder for this home networking technology.	Completed	A Home Networking allowance has been added to the Final Draft specification.
295	Draft 3 Manufacturers	N/A	2/11/2008	DVR Tier 1 Allowance	Again, we would like to express concern for the drop in the DVR Tier 1 allowance from Draft 2 to Draft 3 by 23kWh. The rationale for this radical decline in the allowance remains unclear, and as such, we strongly believe that the DVR Tier 1 allowance should remain 83kWh.	Completed	EPA has worked with various stakeholders and looked at the available technology in determining the most appropriate levels to set. Upon further review of the available, it was deemed appropriate to lower the DVR allowance. If stakeholders have specific models that they believe should meet the ENERGY STAR criteria but do not as a consequence of this change, EPA will consider revising this value based on specific information about the model(s) and why the level should be raised.
296	Draft 3 Manufacturers	N/A	2/11/2008	General Comment	CEE notes with concern that the strong trend for set-top boxes appears to be toward adding functionality that increases the energy use of these devices. This trend has important implications for our members and for their customers, whose electricity bills will continue to increase.  CEE supports ENERGY STAR's efforts to address this trend listed above. We strongly support the identification of a Tier 2 level to capture the opportunities posed by the rapid innovation in this product category and to provide manufacturers with notice and time to increase the efficiency of their products. As efficiency programs pursue ever more aggressive energy savings goals, the additional savings offered by a Tier 2 are particularly attractive.	Completed	Tier 2 criteria levels as proposed in Draft 3 remain in the Final Draft.

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297	Draft 3 Manufacturers	N/A	2/11/2008	Duty Cycle	Lastly, NRDC has proposed potential approaches to testing that seem worthy of further exploration. These include employing a duty cycle approach to testing and linking qualification to both box model number and system providers by requiring testing of boxes as deployed to specific service providers on "live" systems. We understand that it may be too late at this stage to assess and develop these approaches for the Tier 1 specification, but we hope that you will be able to do so during the development of the Tier 2 specification.	Completed	EPA has always planned on exploring a more robust test procedure for future use and will continue to do so. The boxes will also be tested against live systems when field testing and there is a requirement that the representative system must mirror what the MSO believes is in the field for a particular area. It would be unrealistic to ask a MSO to test all of their boxes in every municipality they provide service.
298	Draft 3 Service Providers	100	2/11/2008	Labeling	We support the view of those who stated that graphics/on-screen display over compressed digital interfaces is problematic in that available capacity on display devices is scarce. Verizon does not believe that a manufacturer should be required to expend the resources to render a logo for 5 seconds once or twice a day where the STB does not display any other graphics over the interface. We support the view of those who stated that a qualified STB is not required to display the ENERGY STAR mark over compressed digital interfaces (e.g., IEEE-1394) as long as the ENERGY STAR mark is displayed in the case of all other uncompressed outputs, where the STB does not normally support on-screen display or graphics over said compressed digital interface and the STB has at least one uncompressed output.	Completed	EPA has provided additional flexibility to the labeling requirements in the Final Draft specification.
299	Draft 3 Manufacturers	290	2/11/2008	Multi-Rooms	We support the view of those who stated that a Gateway STB should be considered unique from other STB types. This type of consumer premises equipment inside the end user's home includes a home network interface which interacts with other equipment or the home network in the end user's home. This additional functionality, which may require additional power, distinguishes these devices from other STBs. S. Home Network Interface: Technologies (e.g., MoCA, 802.11, 802.3u, HPNA, etc) utilized to connect the STB to a service provider and /or an end user's home network and/or to create a home network within the end user's home.	Completed	See responses above for more detail.

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300	Draft 3 Manufacturers	437	2/11/2008	Table 2	In a related matter, we support the view of those who stated that to account for the energy contribution of a home network interface, such as MoCA and WiFi that are used in non-Gateway set-top boxes, add "Home Network Interface" to Table 2 and assign a value of 35 kWh/year under the Tier 1 column. Tier 2 value TBD. Add a note indicating that this allowance would not apply to Gateway devices.	Completed	A Home Networking allowance has been added to the Final Draft specification.
301	Draft 3 Manufacturers	N/A	2/11/2008	Optional Network Terminal	As we discussed at the February 2 meeting, as well as on the February 5 call, the ONT is an integral part of a FiOS network, much more analogous to the neighborhood nodes used by cable operators in the hybrid-fiber-coaxial networks than to the STBs those providers' deploy. It is at the ONT – typically attached to the side of a subscriber's home – that our fiber network terminates so that all services delivered over the fiber network may be translated from the optical signals to electrical signals that are delivered to the customers' home equipment (e.g., telephones, computers, routers, STBs, television sets).	Completed	ONT has not been included in this Tier 1 specification.
302	Draft 3 Manufacturers	N/A	2/11/2008	Optional Network Terminal	A FiOS customer must have an ONT to receive any services over our fiber network. Thus, an ONT must be installed for voice or data customers, even if they do not subscriber to our FiOS TV video services. Likewise, a FiOS TV customer has only one ONT, regardless of how many television sets are attached to our video service. Unlike the STBs that FiOS TV subscribers typically rent, we do not consider its ONT to be customer premises equipment and does not rent or sell ONTs to customers. In fact, under the Federal Communications Commission's regulations, we consider the ONT to be the "demarcation point" for services. As such, the ONT includes separate operator and customer access areas at the ONT, and any facilities on the customer's side of the ONT are typically the customer's responsibility, while the ONT and all facilities moving away from the customer's home are considered network equipment.	Completed	ONT has not been included in this Tier 1 specification.

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303	Draft 3 Manufacturers	N/A	2/11/2008	Optional Network Terminal	The ONT performs several technical functions for each of our services. Included among them are optical-electrical signal conversion, signal and service multiplexing/demultiplexing, Operations, Administration and Maintenance (OAM) functions, and service conversion and interface functions. In short, however, the ONT is the interface between our fiber network and the end-user's sub-network. The ONT thus receives the optical signals sent from our central office, and converts them into the appropriate format for delivery over the end user's inside wire and use by the customer premises equipment within the customer's home. So, for example, if a customer subscribes to FiOS TV, the customer's STBs typically are attached to the ONT via coaxial cable and receive the video signals in much the same way that a traditional cable operator's STB receives signals delivered from the neighborhood node. Likewise, the customer's telephones and computers/home network also are attached to the ONT using CAT-5E and/or RJ11 wiring in order to receive the appropriate signals for voice and data services.	Completed	ONT has not been included in this Tier 1 specification.
304	Draft 3 Manufacturers	N/A	2/11/2008	Optional Network Terminal	As this makes clear, the ONTs deployed are an integral piece of network equipment, much more similar to the nodes used by traditional cable operators, and should not be considered a STB for purposes of the EPA's Energy Star standards.	Completed	After investigation, EPA has concluded that it can not include ONT in this Tier 1 specification.
305	Draft 3 Manufacturers	N/A	2/11/2008	Specification Revisions Process	Include both the set top box manufacturers and the service providers in the partnership agreements and qualification process. We agree with EPA that adoption of the energy efficiency levels contained in this specification are dependent upon not only the set top box manufacturers, but also the service providers, who are the overall decision makers and frequently the direct purchasers of these devices. In addition, attainment of some of these goals will require changes not only to the box itself but also potential changes to the service provider's "upstream" hardware and/or software.	Completed	Agreed.

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306	Draft 3 Manufacturers	N/A	2/11/2008	Tier 1 and Tier 2	Establish a relatively modest Tier 1 in the near term and a significantly more stringent Tier 2 spec with a sufficiently long lead time to achieve the necessary changes in the supply chain. We view Tier 1 as an effective means to gain stakeholder participation and cause an increased focus on energy efficiency for this market. We are very supportive of the proposed Tier 2 levels and urges EPA to maintain these levels in its final specification.	Completed	Thank you.
307	Draft 3 Manufacturers	N/A	2/11/2008	Tier 2	The 3 year time frame proposed by EPA is justified in order for the industry to achieve the changes needed to meet Tier 2.	Completed	Thank you.
308	Draft 3 Manufacturers	N/A	2/11/2008	Tier 2	We think it would be a big mistake to delay establishing a Tier 2 specification at this time as was requested by a few stakeholders at the February 1 meeting. Such a move would simply create an uncertain policy environment and put on hold much of the design work and investments that are needed. Waiting two years to establish Tier 2 levels simply puts any meaningful progress on hold and essentially delays the effective date of Tier 2 by two more years unnecessarily.	Completed	Agreed.
309	Draft 3 Manufacturers	N/A	2/11/2008	Duty Cycle	At prior stakeholder meetings, NRDC has expressed its preference for a true duty cycle test procedure that would more accurately reflect actual daily energy use. Under the current testing and certification proposal from EPA, the sleep mode test does not actually verify that the set top box promptly goes back into sleep after an event triggered by the service provider or the user ( eg. program download, user verification, video downloads, recording a show, etc.), or that the auto power down feature is performing properly. For example, the spec would not properly account for poor system designs in which the set top box fails to promptly go back to sleep after the set top box records a show for the user.	Completed	Language was added to the test procedure that EPA believes will solve this problem. Service providers will be required to certify that any STBs claiming auto power down will return to sleep. EPA will also suggest and support the IEC process underway to create a STB test procedure make use of a true duty cycle.



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310	Draft 3 Manufacturers	N/A	2/11/2008	Duty Cycle	"Shy of creating a true duty cycle, a simple interim fix would be adding the following requirement to the specification: 'Set top boxes that are automatically awakened from sleep mode to perform an activity required by the service provider or the user shall return back to its low power sleep mode within one minute of activity completion'."	Completed	The Final Draft specification has been clarified to require that a STB return to sleep after 15 minutes of being awakened.
311	Draft 3 Manufacturers	N/A	2/11/2008	Speculative Recording	We believe a reasonable proposal is to make sure boxes with a speculative recording capability, include an easy to access menu option that allows the user to disable this function if he/she desires.	Completed	The Final Draft specification reflects such a proposal.
312	Draft 3 Manufacturers	N/A	2/11/2008	Push "Opt-Out" Capability	Recommend EPA to include a requirement for service operators that "push" video content onto their subscribers boxes to have an "opt-out" capability in their boxes that allows users to decide not to receive video downloads until they choose to reset this feature.	Completed	EPA does not believe that this will yield large savings and that some content delivery methods need to rely on this technique for any sort of custom content.
313	Draft 3 Service Providers	N/A	2/11/2008	Qualification Tracking System	Recommend EPA maintain a qualification tracking system that would link qualification to the box and service provider and utilize a chart similar to the hypothetical one shown below. Key to making this system work is requiring the box to be tested on the service provider's system or via an equivalent simulation. Please refer to the tab titled, "NRDC Table" for examples of how certain models qualify for ENERGY STAR under particular service providers and how they do not qualify for others.	Pending	EPA will take this under consideration. It may be a particularly useful way to convey qualification information to consumers. EPA will wait until it has obtained some qualified product data to consider how this scenario might best work.
317	Draft 3 Manufacturers	N/A	2/13/2008	Duty Cycle	NRDC has sent me a copy of their comments, most of these we would agree with. However we would prefer to keep the current artificial duty cycle, which will be wrong in almost every case but will be right on average, as this gives a constant repeatable measurement technique.	Completed	Agreed.
318	Draft 3 Manufacturers	N/A	2/13/2008	Tier 2	The tier 2 limits are aggressive, and as such should remain in the document, but it is important to liase with manufacturers before the limits come into force to determine if the latest silicon and software is capable of complying with tighter limits, if not the limits need to be changed or the date of effect of Tier 2 delayed.	Completed	Agreed. EPA will contact stakeholders to assess the state of technology before Tier 2 takes affect.

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319	Draft 3 Service Providers	N/A	2/13/2008	Sleep Mode	The ability to go back into sleep mode after a service provider triggered event is important, but should not be mandated to be within 1 minute, as this event may include revalidation of the CA system. It is important that a user (hacker) cannot get easy access to the CA data as this will make it much simpler to crack the CA system, a time frame of 15 minutes would be preferred	Completed	The requirement has been set to 15 minutes in the Final Draft specification.
320	Draft 3 Service Providers	N/A	2/13/2008	Speculative/Push VOD	We agree with the comments from NRDC on speculative or push VOD. For pure energy efficiency it would be better if these were not permitted, however these are seen as important by the service providers, so the ability for the end user to disable this function is seen as advantageous.	Completed	See response to comments above.
321	Draft 3 Service Providers	N/A	2/13/2008	Service Provider	We would agree it is essential for the ES status of a STB to be linked to a service provider, as different providers use different middleware and application layer software which can affect the ES status of the box.	Pending	EPA will take this under consideration. It may be a particularly useful way to convey qualification information to consumers. EPA will wait until it has obtained some qualified product data to consider how this scenario might best work.
322	Draft 3 Service Providers	N/A	2/13/2008	Timeline	In addition we are concerned that service providers will be allowed to join the ES scheme and gain the positive publicity in April, 8 months before it can be known whether it will be possible to purchase the 50% ES qualified products.	Completed	EPA understands the concern that partners are promoting their commitment to meet ENERGY STAR requirements in advance. This is similar to other ENERGY STAR programs, however, where manufacturers join as a partner and pledge to make energy-efficient products. EPA is trying to get partners on board as soon as possible with these specifications, and sees a valuable reward in allowing them to publicize their commitment early in the process.
323	Draft 3 Manufacturers	N/A	2/13/2008	DOCSIS Modem	We note that the draft 3 does not include any allowance for DOCSIS modems, without an allowance it will not be possible for high end cable products to be ES compliant	Completed	A DOCSIS allowance has been added to the Final Draft specification..
324	Draft 3 Manufacturers	N/A	2/13/2008	Labeling	For labeling we would suggest that it would be relatively simple to display the ES logo when notifying of auto sleep. The display of the ES logo at start-up is more contentious	Completed	EPA has provided additional flexibility to the labeling requirements in the Final Draft specification.

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325	Draft 3 Manufacturers	N/A	2/5/2008	Multi-Rooms	It may be necessary to differentiate the allowance between Gateways (GWs) that requires the use of Thin Clients (TCs) versus GWs that do not need TCs.	Completed	Based on further investigation, EPA has edited this section in the Final Draft specification. Multi-room STBs that require Thin Clients may only claim one-half of the Multi-room allowance. Multi-room STBs that do not require Thin Clients may claim all of the multi-room allowance.
326	Draft 3 Manufacturers	N/A	2/5/2008	Multi-Rooms	<p>If we calculate the Tier 1 annual energy allowance for a Cable (70) Gateway (+44) that supports 2 TVs with the following allowances; additional tuner (+53), AVP (+18), DVR (+60) and HD (+35), we are allowed a total of 306 KWh/y.</p> <p>If the GW can connect to the second TV without any TC (via IP or NTSC or some other home NW) then the total allowance for the home is 306 KWh/y.</p> <p>If the GW requires a TC (+27) to connect to the second TV then the total allowance for the home is 333 KWh/y.</p> <p>My particular concern is that any GW product that does not require the use of a TC that uses between 306 and up to 333 KWh/y will not pass despite using less energy in the home than the equivalent GW that requires the use of a TC.</p>	Completed	See comment above in row 325
327	Draft 3 Manufacturers	N/A	2/5/2008	Multi-Rooms	<p>To fully cover all configurations an equation should be used to calculate the allowance so this does not happen.</p> <p>For a GW with no TCs required: GW Allowance = <math>44 + 27n</math> (<math>n</math> = number of independent TVs supported)</p> <p>For a GW that must use TCs: GW Allowance = 44</p>	Completed	See comment above in row 325

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1	Document	Line #	Date Submitted	Topic	Comment	Status	Response															
328	Draft 3 Manufacturers	N/A	2/5/2008	Multi-Rooms	<p>Alternatively a table could be included to determine the Gateway Allowance:</p> <table border="1"> <tr> <td>Total TVs</td> <td>2</td> <td>3</td> <td>4</td> <td>5</td> </tr> <tr> <td>TCs Req'd</td> <td>44</td> <td>44</td> <td>44</td> <td>44</td> </tr> <tr> <td>No TCs Req'd</td> <td>71</td> <td>98</td> <td>125</td> <td>152</td> </tr> </table>	Total TVs	2	3	4	5	TCs Req'd	44	44	44	44	No TCs Req'd	71	98	125	152	Completed	See comment above in row 325
Total TVs	2	3	4	5																		
TCs Req'd	44	44	44	44																		
No TCs Req'd	71	98	125	152																		
329	Draft 3 Manufacturers	N/A	2/5/2008	Multi-Rooms	<p>Another alternative to keep things simpler may be to allow a GW that does not require any use of TCs to divide the total calculated TEC by the number of TVs supported.</p> <p>This would encourage manufacturers to work with TV manufacturers to create solutions that don't need TCs and may have a positive effect on total energy use in the home.</p>	Completed	See comment above in row 325															
330	Draft 3 Service Providers	N/A	2/5/2008	Alternative Configuration Penalty	The final document should make sure there is no penalty for using less energy per TV than an alternative configuration.	Completed	See comment above in row 325															
331	Draft 3 Service Providers	37	2/13/2007	Terminology	As discussed at the stakeholders meetings; the definition of a "Refurbished STB" must include an STB that is deployed in a subscriber's home and has received a software upgrade that brings the STB into compliance with the ENERGY STAR requirements. An STB "Refurbished" in this manner should apply to the "Purchased" and "Deployed" percentages. This provides an incentive to service providers and STB manufacturers to invest in upgrading their installed base of STBs since they can be counted toward meeting the ENERGY STAR requirements.	Completed	The language in the Final Draft specification will clarify that products that are upgraded in the field may be counted toward the ENERGY STAR requirement.															
332	Draft 3 Service Providers	78-80	2/13/2007	Sleep Mode	As discussed in the stakeholders meeting, the time allowed for exiting sleep mode should be an average daily time over a month of operation instead of the current 2 hrs over 24 hours. This will allow maximum flexibility for Partners to meet the requirement.	Completed	Agreed. The Final Draft specification has been edited to reflect an average.															

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333	Draft 3 Service Providers	86-87	2/13/2007	Terminology	Recommend a change to: "at every opportunity, install ENERGY STAR qualified Thin Clients, if required, when an installation includes a Gateway STB installed;	Completed	The language in the Final Draft specification will take this suggestion into account.
334	Draft 3 Manufacturers	100-102	2/13/2007	Labeling	We recommend that the ENERGY STAR mark be displayed on the GUI used to control the auto power down features (e. g. on/off and delay time) and NOT at the actual time the auto power down function is initiated. The use of the ENERGY STAR mark, along with explanatory text, on the GUI can be used to alert the user that the defaults set at the factory maximize energy savings.	Completed	EPA has provided additional flexibility to the labeling requirements in the Final Draft specification.
335	Draft 3 Manufacturers	221	2/13/2007	Terminology	We recommend the text change from "...other output" to "...other output device"	Completed	Agreed. The Final Draft specification has been edited accordingly.
336	Draft 3 Manufacturers	262	2/13/2007	Terminology	We would like to clarify the definition of an "IP Tuner" by example; If a Cable or Satellite STB also has an Ethernet port (RJ-45) so it can access an additional source of media content, either downloaded or streamed, over the Internet for purposes of displaying on a connected TV this would meet the definition of an "IP Tuner." True or False	Completed	False. The Base Functionality would be Cable or Satellite. The Additional Tuner allowance for IP could be used with respect to the Ethernet Port.
337	Draft 3 Manufacturers	290	2/13/2007	Terminology	We recommend the term "Gateway" be changed to "Multi-TV" or "Multi-Room".	Completed	Agreed. The Final Draft specification has been edited accordingly.
338	Draft 3 Manufacturers	418	2/13/2007	Tier 1 and Tier 2	We propose that the current document be revised to become the ENERGY STAR Tier 1 Requirements only and that a separate ENERGY STAR Tier 2 Requirements document be issued in draft form. The reasons for this are as follows: 1. We believe that it is highly likely that the Tier 2 allowances, timeframe, definitions and test plan will change as ENERGY STAR and its Partners gain experience from the implementation of the Tier 1 program. 2. It will be difficult for a Partner to sign the current agreement, as currently written, since it commits the partner to meet the Tier 2 goals now despite ENERGY STAR plans to review and possibly adjust allowances.	Completed	EPA will add language to Section 7 "Future Specification Revisions" in the Final Draft specification to clarify that Tier 2 may need revision. However, EPA will not place the Tier 2 requirements in a separate document. As stated in the Partnership Agreement, manufacturers may choose to discontinue their partnership with EPA at any time, so the possibility of a modification to the Tier 2 energy allowances should not discourage organizations from partnering with EPA for Tier 1, nor will it impede EPA's ability to work with stakeholders to modify the Tier 2 allowances, if warranted.

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339	Draft 3 Manufacturers	418	2/13/2007	Tier 1 and Tier 2	3. A separate ENERGY STAR Tier 2 document (in draft form) can be used to communicate the goals of Tier 2 but allow for further revisions as agreed to by ENERGY STAR and Partners as they gain Tier 1 experience and adapt to the market conditions for the Tier 2 timeframe. 4. The aggressive Tier 2 goals might not be met without the STB having two-way communications capability and significant systems redesign. Partners have been very focused on the short term Tier 1 requirements and require more time to understand the implication of Tier 2.	Completed	EPA will add language to Section 7 "Future Specification Revisions" in the Final Draft specification to clarify that Tier 2 may need revision. However, EPA will not place the Tier 2 requirements in a separate document. As stated in the Partnership Agreement, manufacturers may choose to discontinue their partnership with EPA at any time, so the possibility of a modification to the Tier 2 energy allowances should not discourage organizations from partnering with EPA for Tier 1, nor will it impede EPA's ability to work with stakeholders to modify the Tier 2 allowances, if warranted.
340	Draft 3 Manufacturers	441	2/13/2007	Home Networking Technology	We propose an allowance for a "Home NW (HNW)" of 35 KWh/y should be added for non-Gateway STBs. A standard Ethernet RJ-45 HNW port could be considered part of the base functionality; however any HNW port of the type HPNA, MoCA, WiFi or WiMax should be able to claim the allowance.	Completed	A allowance for Home Networking has been added to the Final Draft specification.
341	Draft 3 Manufacturers	442	2/13/2007	Multi-Rooms	We recommend that the "Gateway" allowance be changed as follows: Gateway that requires Thin Clients.....44 Gateway that does not require Thin Clients.....71 (44+27) This will eliminate the situation where a Gateway STB that does not require Thin Clients fails to pass even though it is using less power in the home than the equivalent Gateway that does require Thin Clients.	Completed	See response in row 325 above
342	Draft 3 Manufacturers	595	2/13/2007	Duty Cycle	"Table 3: Duty Cycle" needs further explanation of the "Additional Tuner Usage" column. We recommend that a separate table be created to cover any duty cycle requirements for "Additional Tuners". We also recommend an example be added for "Additional Tuners"	Completed	To make the procedure clearer, the Additional Tuner Usage column has been removed from the Final Draft specification. Instead, the test procedure has been edited to require STBs with two or more tuners to use multiple tuners during a portion of the test procedure.

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343	Draft 3 Manufacturers	651	2/13/2007	Terminology	Change from "Seep" to "Sleep"	Completed	This has been corrected in the Final Draft specification.
344	Draft 3 Manufacturers	653	2/13/2007	Sleep Mode	As discussed in the stakeholders meeting, the time allowed for exiting sleep mode should be an average daily time over a month of operation instead of the current 2 hrs over 24 hours. This will allow maximum flexibility for Partners to meet the requirement.	Completed	Agreed. The Final Draft specification has been edited accordingly.
345	Draft 3 Manufacturers	671-691	2/13/2007	Tier 2	We recommend that the Tier 2 dates be included in a separate Tier 2 document as we commented earlier.	Completed	EPA will add language to Section 7 "Future Specification Revisions" in the Final Draft specification to clarify that Tier 2 may need revision. However, EPA will not place the Tier 2 requirements in a separate document. As stated in the Partnership Agreement, manufacturers may choose to discontinue their partnership with EPA at any time, so the possibility of a modification to the Tier 2 energy allowances should not discourage organizations from partnering with EPA for Tier 1, nor will it impede EPA's ability to work with stakeholders to modify the Tier 2 allowances, if warranted.
346	Draft 3 Manufacturers	89-91	2/11/2008	Terminology	Delete the following text, "The ENERGY STAR mark must be displayed as part of the auto power down notification, or at another event/location proposed by partner and approved by EPA in advance of distribution to consumers."	Completed	EPA has provided additional flexibility to the labeling requirements in the Final Draft specification.
347	Draft 3 Manufacturers	126-129	2/11/2008	Terminology	Change text to, "...the Partner, at its discretion, may be listed on the ENERGY STAR Web site."	Completed	EPA would like to promote its list of ENERGY STAR partners.
348	Draft 3 Manufacturers	139-141	2/11/2008	Terminology	Change text to, "Any information used will be masked and aggregated by the EPA and will not reveal information specific to the Partner, including its customers, its specific industry segment, or its geographic location."	Completed	EPA appreciates this feedback, but will retain the current language in the Draft 3 specification. CEE has indicated that regional data is important in helping utilities make decisions about funding energy efficiency activities.

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349	Draft 3 Manufacturers	199	2/11/2008	Terminology	Move the definition of Gateway STB from lines 290 & 291 to this section. Modify the definition as follows: "Gateway STB: A STB that meets the definition for Cable, Satellite, IP or Terrestrial STB above and is capable of providing independent content to multiple TVs. For purposes of these requirements, a Gateway STB also includes an Optical Network Terminal (ONT) STB used by some service providers."	Completed	The term "multi-room" has replaced "gateway" in the Final Draft specification to avoid confusion. The specification is not intended to cover commercial gateways and this has been clarified in the definition.
350	Draft 3 Manufacturers	206-208	2/11/2008	Terminology	Make the definition clearer and change to, "An STB whose principal function is to receive television signals from a broadband, fiber/hybrid/coaxial, community cable distribution system..."	Pending	Please clarify the comment.
351	Draft 3 Manufacturers	237	2/11/2008	Terminology and DOCSIS/SCTE-55	If the DOCSIS/SCTE-55 allowance in Table 1 is accepted then add the following definition, "H. Out Of Band Transport: Society of Cable Telecommunications Engineers (SCTE) standards (ANSI/SCTE 55-1 2002 and ANSI/SCTE 55-2 2002) that define interface requirements used to gain access to data channels outside of the audio/video source signal over broadband, fiber/hybrid/coaxial, community cable distribution systems."	Completed	An allowance for DOCSIS has been added. SCTE-55 is considered to be included in the Base Allowance.
352	Draft 3 Manufacturers	240-242	2/11/2008	Terminology	If the recommendation to remove Gateway as an additional functionality and add it to Table 1 as a base functionality is accepted, then replace the existing text with the following, "Base Functionality: For purposes of this specification, the primary functionality that defines the criteria that apply to a STB. The Base Functionality is one of the following: Cable, Satellite, IP, Terrestrial, Thin-Client/Remote, or Gateway."	Completed	Gateway (now "multi-room") has remained as an Additional Functionalities Allowance.
353	Draft 3 Manufacturers	247	2/11/2008	Terminology	If the recommendation to remove Gateway as an additional functionality and add it to Table 1 as a base functionality is accepted, replace existing text with the following text, "...Player/Recorder, and Cable Card." which is needed to remove Gateway from the list of Additional Functionalities.	Completed	Gateway (now "multi-room") has remained as an Additional Functionalities Allowance.



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354	Draft 3 Manufacturers	278-282	2/11/2008	Terminology	Delete the following text, "P. Out-Of-Band Tuners: Tuners compliant with standards ANSI/SCTE 55-1 2002 and ANSI/SCTE 55-2 2002 and other similar types of technologies used to gain access to data channels outside of the audio/video source signal. These may facilitate two-way communication and allow the box to send diagnostic information back to the Service Provider as well as enabling Pay-Per-View content and other rich media interactive content."	Completed	The passage has been removed from the Additional Functionalities definitions in the Final Draft to make clear that there is no allowance for this in general. As noted in other responses, an allowance for DOCSIS has been added.
355	Draft 3 Manufacturers	Table 1	2/11/2008	Annual Energy Allowance for Cable	Change the annual energy allowance for Cable from 70 kWhr/year to 96 kWhr/year. Adding an additional 26 kWhr/year will provide the necessary energy allowance for the out-of-band tuner technologies used in set-top boxes. These technologies include DOCSIS, ANSI/SCTE-55-1 2002 or ANSI/SCTE-55-2 2002	Completed	See response above.
356	Draft 3 Manufacturers	Table 1	2/11/2008	Tier 2 Annual Energy Allowances	Delete Tier 2 Annual Energy Allowances. Given our current set-top roadmaps, we cannot meet the Tier 2 criteria by the dates specified. We again request that Tier 2 compliance be eliminated from the requirements.	Completed	EPA believes establishing criteria for Tier 2 is important to provide a target for energy savings within the next few years. EPA will review these proposed levels with stakeholder engagement well in advance of the Tier 2 effective date to ensure they remain appropriate. Further, recognizing that there is no absolute guarantee that products will be developed that meet the criteria within the timeframe specified, EPA is not setting purchase and deployment criteria for Tier 2 products for service providers at this time.
357	Draft 3 Manufacturers	Table 2	2/11/2008	Multi-Rooms	Remove Gateway as an additional functionality and add it to Table 1 as a base functionality. As currently defined a Gateway device will be closely coupled with a thin client/remote to serve content to multiple TVs. We feel this is essentially another box type that more logically belongs in Table 1.	Completed	See responses above referring to Gateway comments.

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358	Draft 3 Manufacturers	Table 2	2/11/2008	Multi-Rooms	Add additional allowances to Table 2 for the Gateway based on the functionality it supports. We suggest separate allocations for video, voice and high-speed data. (kWhr/year allocations for each TBD). Gateways will provide not only video to multiple TVs but also voice and high-speed data. We were not able to provide specific recommendations on the kWhr/year allocations by comment deadline, but are researching these values further and will be able to provide this detail to the EPA at a later date.	Completed	The focus of this specification is on video. No allowances are being given for other types or services. However, the test procedure has been edited to allow for any functionality other than video to be turned off during the test.
359	Draft 3 Manufacturers	Table 2	2/11/2008	Home Networking Technology	Add a "Home Network Interface" category to Table 2 and assign a value of 35 kWh/year under the Tier 1 column. Add a note indicating that this allowance does not apply to Gateway devices. Add a definition for Home Network Interface under Additional Functionalities (text TBD). To account for the energy contribution of a home network interface, such as MoCA and WiFi that are used in non-Gateway set-top boxes.	Completed	A Home Networking allowance has been added.
360	Draft 3 Manufacturers	Table 2	2/11/2008	Tier 2 Annual Energy Allowances	Delete Tier 2 Annual Energy Allowances. Given our current set-top roadmaps, we cannot meet the Tier 2 criteria by the dates specified. We again request that Tier 2 compliance be eliminated from the requirements.	Completed	EPA will add language to Section 7 "Future Specification Revisions" in the Final Draft specification to clarify that Tier 2 may need revision. However, EPA will not place the Tier 2 requirements in a separate document. As stated in the Partnership Agreement, manufacturers may choose to discontinue their partnership with EPA at any time, so the possibility of a modification to the Tier 2 energy allowances should not discourage organizations from partnering with EPA for Tier 1, nor will it impede EPA's ability to work with stakeholders to modify the Tier 2 allowances, if warranted.

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361	Draft 3 Manufacturers	Table 2	2/11/2008	Annual Energy Allowance for Additional Tuners	Change the Annual Energy Allowance for Additional Tuners from 53 kWh/year to 35 kWh/year. Add footnote clarifying that the annual energy allowance for Additional Tuners is a per tuner allowance. The existing text is ambiguous as to whether the allowance is applied to one or all tuners. We feel the allowance should apply to each tuner and recommend lowering the allowance to account for this approach.	Pending	EPA requests additional information to evaluate this proposal, e.g., how many new STBs with additional tuners have only one additional tuner? How many STBs have more than two tuners?
362	Draft 3 Manufacturers	652-654	2/11/2008	Terminology	Change text to, "If this occurs, the STB may exit the Sleep mode for no longer than an average of two hours in a twenty-four (24) hour period that the device would otherwise remain in Sleep mode." This change will afford the manufacturer some flexibility when in rare instances a set-top's peak time exceeds 120 minutes.	Completed	Agreed. The Final Draft specification has been changed accordingly.
363	Draft 3 Service Providers	21-21	2/11/2008	Terminology	Change text to, "... and 50% of all newly purchased boxes deployed to subscribers within a calendar year are Energy Star Qualified." To clarify that the deployment percentage applies to newly purchased ENERGY STAR-compliant devices.	Completed	EPA has changed the requirements in the Final Draft of the Service Provider specification to apply to new purchases OR percent of fleet.
364	Draft 3 Service Providers	23-25	2/11/2008	Terminology	Delete the following text, "EPA will reevaluate the appropriateness of this percentage for 2010 and 2011, when Tier 2 becomes effective and there is more information on the likely availability of qualifying products." Manufacturers and service providers will be unable to meet the Tier 2 requirements as currently defined.	Completed	EPA will retain similar language in the Final Draft specification. As stated in the Partnership Agreement, Service Providers may choose to discontinue their partnership with EPA at any time, so a modification to the purchase and fleet requirements in 2010 and 2011 should not discourage organizations from partnering with EPA in the near term, nor will it impede EPA's ability to work with stakeholders to determine if changes to the purchase and fleet requirements are warranted.

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365	Draft 3 Service Providers	56-58	2/11/2008	Terminology	Replace existing text with, "This is confirmed by testing for ENERGY STAR qualification while the product is connected to the system, either on a live system or at representative system in a laboratory." The requested change removes the ambiguity that the device need be tested literally at a headend.	Completed	Agreed. This section has been edited accordingly in the Final Draft.
366	Draft 3 Service Providers	78-80	2/11/2008	Terminology	Replace existing text with, "If this occurs, the STB may exit the Sleep mode for no longer than an average of two hours in a twenty-four (24) hour period that the device would otherwise remain in Sleep mode." This change will afford the service provider some flexibility when in rare instances a set-top's peak time exceeds 120 minutes.	Completed	The language has been modified in the Final Draft, per this suggestion.
367	Draft 3 Service Providers	100-102	2/11/2008	Terminology	Delete the following text, "The ENERGY STAR mark must be displayed as part of the auto power down notification, or at another event/location proposed by partner and approved by EPA in advance of distribution to consumers." Given the numerous customer education and notification requirements contained with the service providers agreement, we believe it sufficient to display the ENERGY STAR mark at power up. This is also consistent with other ENERGY STAR product requirements.	Completed	EPA has provided additional flexibility to the labeling requirements in the Final Draft specification.
368	Draft 3 Service Providers	107	2/11/2008	Terminology	Add footnote stating "For boxes already deployed, distribution of labels by a service provider shall satisfy this requirement regardless of whether a consumer has affixed such label." To clarify that service providers are not expected to send service personnel to customer locations to ensure that labels are affixed.	Completed	This method of labeling refurbished boxes is acceptable. EPA has retained its language from the Draft 3 specification that states in general that temporary labels are acceptable.

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369	Draft 3 Service Providers		2/11/2008	Terminology	Replace existing text with, "Any information used will be masked and aggregated by the EPA and will not reveal information specific to the Partner, including its customers, its specific industry segment, or its geographic location." We respectfully request the EPA reconsider its decision to use its standard language in this area in order to better protect the confidentiality of manufacturers and the service providers participating in this new program.	Completed	EPA appreciates this feedback, but will retain the current language in the Draft 3 specification. CEE has indicated that regional data is important in helping utilities make decisions about funding energy efficiency activities.
370	Draft 3 Service Providers	37-40	2/11/2008	Terminology	Replace existing text with, "Refurbished or reconfigured STBs (i.e. "legacy boxes") may be counted toward the purchase and deployment requirement if they meet the same energy efficiency requirements noted for new STBs. An external power supply utilized on reconfigured or refurbished STBs already deployed in the field are exempt from the external power supply requirements defined in Section 3-E of the ENERGY STAR Program Requirements for Set-top Boxes. The service provider must test a representative sample of the refurbished STBs following the test procedure provided in ENERGY STAR Program Requirements for Set-top Boxes - Version 2." To clarify that service providers are not expected to replace legacy external power supplies for legacy set-tops that could otherwise be reconfigured to meet Tier 1 criteria.	Completed	The Final Draft manufacturer specification clarifies that refurbished boxes that meet the efficiency requirements noted in the STB specification may employ external power supplies that are not capable of earning the ENERGY STAR because of the negative environmental implication of replacing power supplies on already deployed boxes.
371	Draft 3 Manufacturers	N/A	2/20/2008		Energy Star Tier 2 must include SEPARATE GUIDELINES for one-way and two-way networks.	Completed	EPA will add language to Section 7 "Future Specification Revisions" in the Final Draft specification to clarify that Tier 2 may need revision.

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372	All	NA	2/20/2008	Tier 2 Energy Allowances	A process and timeline for changes to the guidelines must be included in these guidelines to allow partners enough time to adapt to changes. For example, changes to the “% purchased” and “% deployed” values must be introduced no later than 18 months from their effective dates. In another example, the values for follow-on Tiers must be locked in no later than 36 months from their effective dates, as STB development cycles involving new silicon typically exceed 30 months.	Completed	EPA appreciates the lead time that manufacturers and service providers need to adapt to guidelines put forth by ENERGY STAR. It is EPA's standard policy to provide at least nine months lead time before any published specifications come into effect. The service provider specification has been modified in the final draft to list specifically the purchase and deployment percentages required for 2009 and 2010. The manufacturer specification has been modified in the final draft to explain that Tier 2 criteria may need to be modified, and that any changes will be finalized at least nine months prior to December 15, 2010.
373	Draft 3 Service Providers	37	2/20/2008	Legacy Boxes	We welcome how EPA responded in Draft 3 with a new definition of “refurbished qualified STBs” and formulas that allow deployments of these to be counted towards the percentage of qualified STBs purchased and deployed in a given year.	Completed	Thank you.

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374	Draft 3 Service Providers	NA	2/20/2008	Legacy Boxes	Expected improvements with legacy STBs via software upgrades may not result in the energy consumption of these STBs dropping within Tier 1 (not to mention Tier 2) allowances. Nevertheless, these improvements are of importance as they will apply to large numbers of deployed products and provide immediate benefit to consumers. The proposal for Draft 3, then, does not result in giving service providers the incentive to make legacy improvements. A solution to this problem would be for EPA to use a modified definition of "EQUIVALENT refurbished qualified STBs" with the formulas proposed in Draft 3. For example, if a 20 kWh/yr reduction is needed for a legacy STB to meet the Tier 1 requirement, this could be met by a 10 kWh/year reduction in two legacy STBs or a 5 kWh/year reduction in four legacy STBs, and not only by a 20 kWh/year reduction in a single legacy STB. We specifically propose the definition: "An equivalent refurbished qualified STB equals the number of refurbished STBs whose total energy reduction is equal to or greater than the reduction necessary for a single refurbished STB to meet ENERGY STAR criteria."	Completed	EPA strongly encourages any improvements that can result in increased energy efficiency of legacy boxes. However, for the purposes of the ENERGY STAR Product Labeling program, only individual boxes that can be refurbished to meet the same performance criteria as new boxes can earn the ENERGY STAR mark.
375	Draft 3 Service Providers	86	2/20/2008	Multi-Rooms	Draft 3 states that a service provider must install ENERGY STAR qualified remote boxes "at every opportunity" when an installation has a Gateway STB installed, which seems equivalent to a deployment target of 100%. It would be more appropriate to use the same target for remote boxes as for all other types of boxes (i.e. 50% for purchases and 50% for deployments).	Completed	EPA maintains that multi-room boxes should not be installed in situations where they will not power more than one output device.

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376	2/13 Discussion Documents	NA	2/20/2008	EPSs	EPA proposes a compromise in which only newly manufactured STBs (and not refurbished STBs) require an ENERGY STAR compliant EPS. This proposal unfairly burdens STB designs that use an EPS over STB designs with internal power supplies by imposing a double requirement. The separate ENERGY STAR EPS program has its own criteria for success and its own compliance dates which will not necessarily stay in synch with the criteria and compliance dates for the ENERGY STAR STB program: consequently these should be kept separate.	Completed	EPA is committed to advancing power supply efficiency in all products. EPA continues to see the benefit in encouraging the use of energy-efficient EPSs and sees inclusion of EPS requirements in end-use products as a means of raising the efficiency while also lowering the cost of efficient EPSs. The Final Draft specification will not require that refurbished or reconfigured boxes with an EPS use one that can meet ENERGY STAR because of negative environmental impact of getting EPSs to already deployed boxes, but this requirement will be retained for newly-manufactured boxes.
377	2/13 Discussion Documents	NA	2/20/2008	Purchase & Deployment %	The EPA proposed fleet requirement unfairly penalizes service providers with large installed STB populations. We strongly prefer that EPA use purchase and deployment criteria from Draft 3 with modifications that reflect the "Refurbished STB Energy Savings" comments above.		EPA has changed the requirements in the Final Draft of the Service Provider specification to apply to new purchases OR percent of fleet.
378	2/13 Discussion Documents	NA	2/20/2008	Representative Sample Size	EPA suggests that 3 randomly selected STBs must meet the ENERGY STAR criteria with more than 10% margin, else 5 randomly selected STBs must meet the criteria with no margin. We propose instead that the averaged test results for 5 randomly selected STBs be compared against the ENERGY STAR criteria, as this is far simpler and is what any average person would expect is being done.	Completed	Partners are responsible for ensuring that all products that bear the ENERGY STAR mark are capable of meeting the ENERGY STAR specification, not simply an average. To clarify, EPA's guidance on representative sample size only requires testing an additional TWO units if one of the first three is within the 10% margin.



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379	All	NA	2/20/2008	Final Draft	Numerous changes to Draft 3 are already anticipated as a result of the various meetings held since its release and the correspondences that have followed. We applaud that EPA remains receptive to changes and believes that the ENERGY STAR STB program will see better participation as a result. Many of these new changes are expected to be significant, however, and time is needed for stakeholders to review the proposed changes, evaluate their impact and provide feedback. It would be appropriate for another full drafting round to be planned for by EPA before a Final Draft is released.	Completed	Stakeholders will be given an opportunity to comment on the Final Draft specification before the Final Specification is published.
380	2/13 Discussion Documents	N/A	2/20/2008	EPSs	We support EPA's proposal that clarified that service providers are not expected to replace legacy external power supplies for legacy STBs.	Completed	
381	2/13 Discussion Documents	N/A	2/20/2008	Representative Sample Size	We generally support the EPA proposal for determining representative sample size for testing. However, in addition to the requirement that partners must report data to EPA on a Qualified Product Information (QPI) form, we also recommend an online product submittal process. Furthermore, we look forward to receiving additional information from EPA on reporting requirements. Individual companies' purchase and deployment figures are highly confidential and should not be required, nor be able to be inferred, by the metrics reported to EPA.	Completed	EPA will take this comment under consideration. The development of an online product reporting system is costly, and best reserved for product categories where partners may need to report thousands or tens of thousands of qualified models, or energy efficiency data for multiple international markets. With the Final Draft, EPA will distribute draft QPI and Unit Shipment Data collection forms to provide stakeholders with an idea of the level of detail required. EPA understands the highly confidential nature of purchase and deployment data and will not make this information public. However, it is necessary to collect such information from partners to verify that they are meeting their commitments under ENERGY STAR.

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382	2/13 Discussion Documents	N/A	2/20/2008	Purchase & Deployment %	We prefer that EPA retain the criteria in the Draft 3 specification. These criteria provide a reasonable starting point while at the same time, creating incentives for manufacturers and service providers to work together for energy-efficient solutions. However, we are not opposed to exploring further with EPA new approaches to counting products toward ENERGY STAR requirements.	Completed	EPA will propose a slightly different method of counting purchased and deployed boxes in the Final Draft specification. EPA has discussed this alteration with stakeholders over the past week and hopes that the requirement put forth in the specification will be challenging, yet achievable.